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Title in Dutch of the object of the invention: **Methode voor het door middel van en smart card verwerven van het recht op een bepaalde voorziening**

METHOD FOR THE ACQUISITION OF THE RIGHT TO A CERTAIN  
SUPPLY OF A DEMAND BY MEANS OF A SMART CARD

(57)8 Method for the acquisition - by way of a terminal (2) and a control system (7) - of a right to a supply of a demand, such as a right of access\* [\*Translator= note: e.g., to a facility, purveyance or arrangement, or admission to a performance or presentation], or use, with the help

of a registration or recording element (SC), such as a smart card. Besides this, the smart card is used for the payment of the desired supply of a demand, furthermore as registration and proof, for the replacement of >paper= tickets. Thus, one on the same smart card can be used for the buying of (the right to) a future supply of a demand [performance, arrangement], the paying therefor, and the consumption (afterwards of the supply of a demand (the exercise of the purchased right). 8

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#### A. BACKGROUND OF THE INVENTION

The invention pertains to a method for the acquisition of a right to a certain supply of a demand, such as a right of access or use\* [\*Translator=s note: of a facility, or admission to a concert, presentation, or other cultural or sports event] with the help of a registration element such as a smart card , which is readable and/or recordable by means of a terminal that can be operated y a user.

A similar method is know from the US Pat. No. 4,449,186. In that patent, there is described a system for the buying of air tickets. By means of a network, a terminal is connected to a control computer. By means of menus, the user can input his/her desired requests or demands (using a touch screen) whereupon the device prints out a (paper) ticket, and hands it over to the user. Before that, the user has introduced a smart card, from which certain personal data are read out, as a result of which - by way of a payment computer - the payment of the sum of money to cover the travel is adjusted or regulated. The ticket represents the right , which the

user has acquired to be carried - over a specified period of time - from one location to another one.

## B. SUMMARY OF THE INVENTION

The invention under consideration is based on the notion that a smart card - besides being used as a storage of an user=s personal data (including credit card number), can in addition to this be used for the substitution of the standard (paper) ticket in its capacity as registration and proof of the acquired right. Thus, one and the same smart card can be used for the purchasing of (the right to) a future supply of a demand\* [\*Translator=s note: e.g., admission to an upcoming culture & sports event], the payment for that, and the consumption (afterwards) of the supply of a demand, or purveyance (the exercise of the purchased right).

The right of acquisition is, e.g., the right to attend a certain theatrical performance, as elaborated in greater detail below in the form of an example. Essential for the invention is the fact that the smart card (or other registration element) is first and foremost to be used, in order in order for a future right to be bought (ordering and paying function), that the same smart card is used as registration medium and documentary evidence proof medium of that right (ticket function), and, finally, as medium to the actual acquisition of a share in the supply of a demand or purveyance (encoding function) [encyphering or crypto function].

It ought to be noted that it is a well known fact that a smart card is used to buy a supply upon demand , and to pay, and to directly get the supply, e.g., in the case of vending machines for foodstuffs and soft drinks. However, in doing so, the supply of a demand or the purveyance is directly provided without the intermediation of a ticket. The same os also valid for terminals in the beginning of a toll road, in which case after payment (using a smart card), the access to the

toll road is directly open.

### C. EXEMPLIFIED EMBODIMENTS

Fig. 1 shows a telecommunications network 1, to which an ISDN-terminal 2 is connected. This terminal 2 is provided with a keyboard control panel 3, a telephone/microphone 4, a display 5, and a smart card sub-terminal 6 (which can otherwise be integrated with the terminal 2). To the telecommunications network 1 there is likewise connected a computer system 7; [and] it is assumed that this is a ticket-selling computer of a large theater 8. Moreover, the theater is provided with a computer system 9, an admission-control computer [physical-access control computer=], provided with admission-control terminals 10. The ticket-selling computer and the admission-control computer can be formed out of one and the same computer system, and mutually exchange data, e.g., the identification codes of smart cards, whose admission-control facilities (accessories) are acknowledged or recognized by the ticket-selling computer, are relayed to the admission-control computer.

If we assume that the user of terminal 2 wants to have a seat for a certain performance in the theater 10 [sic!!!! - should be 8!], then the following actions or steps will be carried out to this end. The user selects the subscription number of the computer system 7. Whether or not by way of a telephone queue-handling system [A call-holding detector system], the connection to this system 7 is made, and the system asks the user B in a way just like the standard A telephone call-handling system does by means of >electronic language= B to bring his/her smart card in contact with the terminal 2. Subsequently, the system asks [the user] to provide information for which theatrical performance he/she wants to book [seat/s]. The reply to the question -- and

to the remaining questions B can be provided by the user by means of his/her (numeric) keyboard, or by voice (which - in that case - the computer system 7 should be able to understand). In its capacity as a support, when the possibilities are being presented, the display 5 B controlled by the system 7 B is used, particularly if this is a multiple-regulation display. As soon B by way of iteration B the desired booking is made, either the >credit card number= of the smart card is relayed to the system 7 B after which the computer system 7 relays to a >payment computer> 11 the amount due and the credit card number B or the costs are deducted from the balance of the smart card, and the old balance is written off while the new balance is input. After the payment process has successfully been carried out, an access code (enter code) is input or written in the smart card -- possibly having a unique smart-card identification code B as a result of which, this [smart card] is concurrently used in that case as an admission ticket@ for the performance in question. Subsequently, in order for access to be granted to the performance, the smart card - at the entrance to the theater - is brought in contact with an admission [access] terminal 10, which controls the access code, and, eventually - for the purposes of verification - the identification code of the smart card, after which the user is granted access to the performance. This having been done, the access code on the smart card is erased [wiped out].

An alternative possibility for the registration of a right to a supply of a demand, which right has been purchased and paid beforehand, and the >consumption= of that right afterwards consists in that an access code is not input or written in the smart card but B after the payment is adjusted B instead of that the (already aforementioned) unique identification code of the smart card is relayed to the admission-control computer [physical access control computer] (by way of

the registration computer). In that case, the admission-control computer B as the user replies by means of his/her smart card to the access terminal 10 B can verify by means of the smart-card identification codes (registered in conjunction with that access right, in this case the right to have access to a certain performance at a certain hour; similar registrations can, e.g., have the format or pattern: Aperformance XXXXX - Date/Time 99-99-99/99:99 - Card No. 0000000000/XX=), or may grant the access to the user. In the case of this alternative method, it is not necessary that the smart card is having input data or information (in this case, an access code). This option exhibits a relationship to known access systems, which operate with the help of smart cards, such as, e.g., used in industrial complexes. However, this [option] does not regard (access) rights, which can be acquired by arbitrary or random users (in particular rights that can be bought), but which can be issued by a system controller, such as a physical security official, to employees, and similar.

Making use of the method in accordance with the invention, the smart card can also be used for the buying and materialization of a multiple right, e.g., as subscription card for the public transportation system and similar (e.g., as an Aelectronic stripe card\* @ [\*Translator=s note:

This is a public transportation I.D. card used in the Netherlands, for the us, street car, and subway system, which consists of a number of stripes, which are stamped for the relevant zone, which is being covered].

#### D. REFERENCES:

US Pat. No. 4,449,186

## E. CLAIMS

1. Method for the acquisition of a right to a certain supply of a demand, such as a right of access\* [\*Translator=s note: to a facility or a performance] or of use, with the help of a registration element (SC), such as a smart card, which is readable and/or recordable\* [\*in which data or information can be input] by means of a terminal (2), which can be operated by a user CHARACTERIZED BY the following actions:

- the user inputs, by means of his/her terminal, one or more first selection codes, having relation to a control system (7), which can procure the right to be acquired. after which the terminal makes connection with the control system, selected by the user;
- the user gets the registration element in contact with the terminal;
- the user, by way of the terminal, inputs one or more second selection codes, having relation to the desired right;
- the control system processes the right, requested by the user by way of the input second selection codes, and inputs - while assigning or allocating that - by way of the terminal, into the registration element the access code, related to that assigned right.

2. Method as claimed in claim 1, whereby the user should pay for the desired right.  
CHARACTERIZED IN THAT

- the terminal reads an identification code from the registration element;

- the control system, while assigning the requested right, relays the identification code of the registration element onto an adjustment or settlement [clearance] system.

3. Method as claimed in claim 1, whereby the user should pay for the desired right.

CHARACTERIZED IN THAT

- the terminal reads a balance code from the registration element;

- the control system, while assigning or allocating the requested right, by way of the terminal, inputs or records a new balance code into the registration element.

4. Method as claimed in claim 1, CHARACTERIZED IN THAT in the case of a materialization of the acquired right, the registration element is brought in contact with [or connected to] a terminal (10) of a control system (9), which reads out the access code of the registration element, and when the validity of the access code is established, releases the requested supply of a demand.

5. Method - whether or not against payment - for the acquisition of a right to a certain supply of a demand, such as a right of admission or use, with the help of a registration element (9SC), such as a smart card, having a unique identification code, which can be read out by means of a terminal (2), which can be operated by a user, CHARACTERIZED BY the following steps or actions:

- the user inputs - by means of his/her terminal - one or more first selection-codes, having relation to a control system (7) that can procure the right to be acquired. whereupon the terminal establishes connection with that by means of the control system, selected by the user;

- the user brings the registration element in contact with the terminal;

- the user inputs - by way of the terminal - one or more second selection-codes, having



relation to the desired right;

the control system processes the right, requested by the user by way of the input second selection codes, and registers - while allocating that - the identification code of the registration element, related to the code, identical to the one, having the assigned right.

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